UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,902	06/16/2005	Yasser Alsafadi	US020606US	6555

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EXAMINER
OLSEN, LIN B

ART UNIT	PAPER NUMBER
3661	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/539,902	ALSAFADI ET AL.
	Examiner	Art Unit
	LIN B. OLSEN	3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 November 2009</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-4,6-8 and 10-15</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) <u>1-4,6-8,10 and 12-15</u> is/are rejected.

7)☐ Claim(s) <u>11</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>05 May 2009</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment and Argument

The replacement paragraph of the specification has been entered and the objection to the specification has been withdrawn.

The amendments to the claims have been entered. The objections to claims 6 and 8 have been withdrawn.

Applicant has stated on the record what the corresponding structure, material or acts that are implicitly set forth in the written description of the specification perform the claimed functionality of the means clauses in Claims 12 and 13. The rejection of claims 12 and 13 under 35 USC 112 2nd paragraph has been withdrawn.

Applicant's arguments, see pages 10-12, filed October 26, 2009 with respect to the rejection(s) of claim(s) 1-3, 6-8 and 10-15 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Chainani, Rosenpflanzer and Makatchev.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the citizenship of each inventor.

A supplemental oath or declaration is required under 37 CFR 1.67. The new oath or declaration must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02. Applicant has acknowledged the need to file the supplemental oath, but has not filed it.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims **1-3, 6-8, 10 and 12-13** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,724,074 to Chainani et al (Chainani). Chainani is concerned with creating a control program for a programmable toy with a graphic programming system.

Regarding independent **claims 1 and 12** which are method and system claims that correspond to each other, **A computer-implemented method for controlling a robot (41), the method comprising the steps of:** - Fig. 3 of Chainani shows a block diagram of the programmable toy which has a micro-computer 50 at its center.

(a) supplying a first set of programming statements (20) defining behaviors to be performed by said robot (41) as a first input to a transformation engine (26),

said first set of programming statements are represented as at least one graphic

icon representing said behavior; - The process for controlling the robot is shown in

Fig. 5. In block 92, the control program is created with a graphic programming system

as described in col. 5 lines 40 - 43 and col. 8 lines 50 – 62.

(b) supplying a second set of programming statements (22) organized as a

plurality of behavioral templates defining rules for interpreting said behaviors as

a second input to said transformation engine (26) said second set of

programming statements providing a mapping to a native language of said robot;

and - In block 94 of Fig. 5 the first program is converted (transformed) to format used by

toy controller. In col. 9, lines 8 – 13 and 36 – 45 it is described that an underlying

program converts the graphical programming to a form suitable for the toy

microprocessor. The section at lines 36-45 describes allowing the program to be

developed for a selectable array of toys with the conversion being performed after the

graphical program is created.

(c) transforming, in said transformation engine (26), said behaviors in

accordance with said defined rules in the first and second set of program

statements to yield a third set of robotic programming statements (30) for directly

controlling said robot (41). – The programming computer shown in Fig. 1 is used to

do the transforming. Col. 9, line 61 to Col. 10, line 6 discuss how device drivers with

different dynamic link libraries perform the respective conversions to the microprocessor

language usable by the respective toys.

Regarding **claim 2, The method of Claim 1, wherein said first set of programming statements (20) are written in a first high-level programming language.** – At col. 9, lines 8 –22 use of high level programming languages such as Visual BASIC or C++ is discussed.

Regarding **claim 3, The method of Claim 1, wherein said second set of programming statements (22) are written in a second high-level programming language.** – At col. 9, lines 8- 22 use of high level programming language is discussed.

Regarding **claim 6, The method of Claim 1, wherein one of said defined behaviors from said first set of programming statements is associated with one of said plurality of behavioral templates. -** At col. 10 lines 16 – 20 discuss the use of a table that translates each call to the appropriate microcode. The Examiner interprets these tables as constituting the behavioral templates.

Regarding **claim 7, The method of Claim 1, wherein said third set of robotic programming statements (30) are written in a low-level robotic hardware language directly executable by said robot (41). -** Fig. 5 step 94 states that the output program is in the format used by the toy controller and at col. 7, lines 6 – 9, the control program passed to the toy is described as typically in machine language.

Regarding **claim 8 and 13, The method of Claim 1, wherein said transforming step (c) further comprises the steps of:**

(1) sequentially selecting said behaviors from said first set of programming statements (20); - At col. 10 lines 7 – 10 conversion of each graphically programmed action into microcode is described.

(2) for each behavior selected at said step (1), searching said plurality of behavioral templates (22) to locate a behavioral template matching said selected behavior; and - At col. 9 line 61 to col. 10 line 19 the use of dynamic link library and tables are described. The Examiner interprets the DLL Table as the plurality of behavioral templates.

(3) applying said matching behavioral template at said step (2) to said selected behavior at said step (1) to yield at least a portion of said third set of robotic commands (30) for directly controlling said robot (41). - At col. 10 lines 7-9 see comment associated with (1).

Regarding **claim 10, The method of Claim 1, wherein said first set of programming statements (20) collectively comprise a robotic presentation (40) to be performed by said robot (41).** - Fig. 5 shows the creation of the robotic program (toy control program) and col. 11 lines 1 – 3 starts a detailed description of creating a control program using the graphical interface is described.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims **4, 14 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chainani as applied to claims 1 and 12 above, and further in view of U.S. Patent Pub. No. 2004/0268247 to Rosenpflanzer et al. (Rosenpflanzer) and "Human-Robot Interface Using Agents Communicating in an XML-Based Markup Language" Makatchev and Tso. (Makatchev). While Chainani describes a graphical interface to control a robot, it was invented in 1995, at least two years before the XML specification was finalized, so was not built using XML. Rosenpflanzer is cited to show that use of XML to facilitate conversion of different representations of information was described using the example of Fig. 8. Makatchev is cited as an example of applying the XML to robot control.

Regarding **claim 4, The method of Claim 2, wherein said first set of programming statements are in the form of an extensible markup language (XML) and the second set of programming statements are in the form of an extensible stylesheet language (XSL). -** In Chainani, the first set of programming statements are in form of calls that interpreted using the tables associated with device drivers (the second set of programming statements). Rosenpflanzer shows in Fig, 8 how such a system would be configured in an XML/ XSL configuration. Makatchev shows that the XML format is applicable to robot control. Chainani was looking for "a method that would enable a child to prepare control programs for a toy on a personal computer" and stated

that "a construction set . . . could be used to build an almost unlimited variety of toys

that would be controlled based on a program developed by a child." (Col 2, 14-24). It

would have been obvious for one skilled in the art of programming to use XML

programs to accomplish Chainani's goals since it is known that "XML-compliant code is

easy to parse and generate by software".

Regarding **claim 14, The system of Claim 13, wherein said behavioral**

templates are searched in a description file (22). – As described in Rosenpflanzer

Paragraphs [0043] and [0044] the source XML and XSL are descriptor files.

Regarding **claim 15, The system of Claim 13, wherein said behaviors are**

selected from a description file (20). – As described in Rosenpflanzer Paragraphs

[0043] and [0044] the source XML and XSL are descriptor files.

Allowable Subject Matter

Claim **11** is objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject

matter: None of the cited prior art reasonably teaches or suggests that in a robotic

control system created with a graphic input system that at least one of an audio and/or a

video multi-media stream for use in the robotic presentation be combined with the third

set of robotic commands.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to LIN B. OLSEN whose telephone number is (571)272-

9754. The examiner can normally be reached on Mon - Fri, 8:30 -5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Thomas G. Black can be reached on 571-272-6956. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin B Olsen/
Examiner, Art Unit 3661

/Thomas G. Black/

Supervisory Patent Examiner, Art Unit 3661